

----- Transmitted by Estelle Noone/CIV/CSC on 01/29/2000 06:10 PM -----

To: wfuller@pop500.gsfc.nasa.gov

Subject: MPS/PM-1 (Aqua) Engineering Release 3.1 Delivery Letter

Willie,

We are pleased to deliver Release 3.1 of the ETS Multimode Portable Simulator for PM-1/Aqua (MPS/PM-1). This engineering release delivery adds command identification via information in the Project Data Base (PDB) and provides resolutions to Discrepancy Reports (DRs) SMOdr05957, SMOdr05958, SMOdr06203, SMOdr05921, and SMOdr05923.

There are four attachments to this letter. The first attachment contains the DR descriptions, the list of source files updated, installation instructions, release notes, and limitations. The second attachment contains special operating instructions for updating the Oracle database to include command definitions. The third attachment contains an updated release history summary matrix. The fourth attachment contains an updated Mission Systems Configuration Management (MSCM) form.

The updated software executable modules are being delivered on CD-ROM. Two copies of the CD are being given to Guy Cordier, who will forward one copy to Raytheon at Denver and will use the other for installation on the MPS/PM-1 simulator PC in the PM-1/Aqua temporary control center in B32/S9, GSFC.

If you have any questions about this latest delivery, please do not hesitate to contact me.

Estelle

Attachments:

Attachment A — Release 3.1 Delivery Contents and Release Instructions

Attachment B — Special Operating Instructions

Attachment C — Release History Summary Matrix

Attachment D — Mission Systems Configuration Management Form

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Attachment A - Release 3.1 Delivery Contents and Release Instructions

The changes made since the delivery of Release 3.0 were to implement command recognition via the Project Data Base (PDB), implement IP and Log module Save and Restore, and in response to the Discrepancy Reports (DRs) described in the following table.

DR Number	Severity	DR Short Description	Comment
ETS0365	2	MPS Clock Drifting + is two days in the past.	Reported by users.
ETS0366	2	Sim crashes on high-rate of commands.	Reported by users
ETS0374	2	MPS handling of packet lengths	Reported by users
ETS0360	3	Cannot modify Instrument CLCW values through the GUI window.	Observed during acceptance test.
ETS0362	3	PB-5 time in EDOS Service Header is 2 days in the past.	Observed during acceptance test.

The changed source files are:

Module	Files
NeTTServer.exe, inputIP.dll, outputIP.dll, LogModule.dll, GSPM1.dll	Various Server source units updated to implement improved Save and Restore.
SCPM1.dll	SCPM1.cpp Command Recognition: PM1BLD.sql, truncate.sql, second_pass.sql, PM1LOADER.bat, cmd_variable.ctl ¹ , cmd_fixed.ctl ¹ , cmd_parm.ctl ¹ , TlmDatabase.pc, PM1CommandThread.cpp, PM1CMDIdentifier.cpp, PM1CMDTransferFrame.cpp, PM1CMDCommandLinkTransferUnit.cpp, PM1CMDPacket.cpp, PM1CMDFarm.cpp, PM1CMDCLCW.CPP, Timecode offset: CucTimecode.cpp
GenericModule.jar, GSModule.jar, IPInputModule.jar, IPOutputModule.jar, LogModule.jar, nett.jar ¹ , PM1SimulatorModule.jar	Various Client source units were updated to support improved Save and Restore, and command recognition via PDB.

¹ New units

Installation Instructions

The changed files have been compiled and linked into executable modules. While this is a patch release, enough has changed to warrant placing the files in a new directory structure instead of copying over the existing Release 3.0. Follow these steps to install the Release 3.1 executable files.

1. Create a Release 3.1 directory structure from the existing Release 3.0 folders as follows.
 - navigate into the folder “C:\Program Files\csc” using either My Computer or Windows Explorer.
 - Right-click on the “PM1 Client 3.0” folder, drag it to a blank place in the “csc” folder, and release it.
 - From the pop-up menu, select the “Copy Here” option.
 - Rename the new folder as “PM1 Client 3.1”
 - Repeat these steps for the “PM1 Server 3.0” folder, renaming the new folder as “PM1 Server 3.1.”
2. Navigate into the new “PM1 Client 3.1” folder and delete all files, but not the subfolders. The files will be replaced by new versions in a later step. Some of the files have new names.
3. Navigate into the new “PM1 Server 3.1” folder and delete all files, but not the subfolders.
4. Delete all .mvc and .ser files from the “save” subfolder under “PM1 Client 3.1”, and all untyped files with the same filenames from the “save” subfolder under “PM1 Server 3.1”. These are saved project files from Release 3.0. They cannot be used with Release 3.1. New projects will have to be created.
5. Insert the Release 3.1 CD into the CD drive and copy the files to the new folders.
 - Copy all files from the Client folder of the CD to the “PM1 Client 3.1” folder just created.
 - Copy all files from the Client\Properties folder of the CD to the “Properties” subfolder under the “PM1 Client 3.1” folder, replacing the existing files.
 - Copy all files from the Server folder of the CD to the “PM1 Server 3.1” folder just created.
 - Copy all script files from the Database folder of the CD to the “D:\pm1_db\scripts” folder, replacing the existing files.
6. Navigate to the new “PM1 Server 3.1” folder, right-click on the “NeTTServer.exe” file, drag it to the Desktop, and release it. From the pop-up menu, select the “Create Shortcut(s) Here” option. Rename the new shortcut as “PM1 Server 3.1”, or something similar.
7. Navigate to the new “PM1 Client 3.1” folder, right-click on the “PM1Client31.bat” file, drag it to the Desktop, and release it. From the pop-up menu, select the “Create Shortcut(s) Here” option. Rename the new shortcut as “PM1 Client 3.1”, or something similar.

8. Follow the directions in Attachment B of this delivery package to reload the PDB into Oracle. The minimum set of PDB files that must be in the D:\pm1_db\pdb_data folder for Release 3.1 are: cmd_parm, cmd_fixdata, cmd_vardata, tlm_desc, tlm_parm, tlm_packet, tlm_dstate, and tlm_pkt2ndhdr.pdb.

Release Notes:

- Save and Restore have been enhanced to save and restore all IP and Log module settings. When building a new project, proceed through the Add Module, Create Links, and Design steps, setting the IP addresses and port numbers, and Log module settings, before saving the project.
- Command validation is now enabled by default. In previous releases command validation was disabled. Command validation may be disabled by selecting the “Modify Validation Criteria” option of the Command menu.
- The report values (next expected frame sequence numbers) may need to be changed in the CLCWs for each virtual channel before receiving commands. This may be accomplished by selecting the “Display Status” option of the Command menu. Alternatively, the commanding system can issue Transfer Frame Control Set V(R) commands to reset these CLCW report values.
- Command identification via the PDB is enabled by default. Command identification may be disabled by entering the “set databasecmdid 0” operator directive. Remember to select the SCPM1 module to receive the directive. Enter the directive with a value of 1 to re-enable command identification.
- The SQL scripts delivered with Release 3.1 have been augmented to include ingest of the command PDB files needed for command identification. The Oracle database created by these scripts can be used with Release 3.0 as well.
- Link information may be viewed by clicking on a link arrow when the project is not running.

Limitations:

- Command identification using the database can be slow, depending upon the command being parsed. It takes on the average approximately 1/3 second to determine the command mnemonic from the bit pattern. Fixed commands take less time and variable commands take more. The longest time to identify a command is about two seconds.
- After a Restore, the Server is set up with all of the restored settings and will operate properly. However, not all of the Client windows have these settings. To ensure that the Client GUI is set up properly so it will send the correct information to the Server, call up all IP and Log Configuration windows immediately after doing a Restore and click on the Apply button in each, without making any changes.
- After a Restore some Link information displayed when clicking on Link arrows may be incorrect.
- The IP input buffer is limited to 1400 bytes. This is the limit on command blocks received.

Attachment B – Special Operating Instructions

This attachment contains special operating instructions for initial ingest of the PDB for SIMSS/PM-1 Release 3.1. This procedure only needs to be performed one time to add the command tables to the Oracle database. Thereafter, follow the directions in Attachment D of the Release 3.0 Delivery Package when upgrading to a new version of the PDB.

<u>NOTE</u>
Limitations in the Sequel scripts require that the PDB files be placed in a specific directory for ingest into Oracle.
That directory is D:\pm1_db\pdb_data

1. Create a folder under the “pm1_db” folder to hold the new PDB flat files. A name something like “PDB_of_<date>” is suggested.
2. Copy the new PDB flat files from Toronto into the new folder.
3. Delete the old PDB files from the “pdb_data” folder.
4. Copy the new PDB files into generic-named files in the “pdb_data” folder. If doing the copy in a DOS window use the following syntax example (NOTE that the PDB file has an imbedded date but the generic file doesn't):

cp cmd_parm_121499.pdb D:\pm1_db\pdb_data\cmd_parm.pdb

If using the drag and drop method, the files must be renamed after they are copied.

5. Select Start->Programs->Oracle for Windows NT->SQL*Plus 8.0 to start *SQL*Plus*¹
6. Enter *stest* for USER NAME and *etsmps1* for PASSWORD then click on OK. HOST STRING is not required.
7. Type the following to run the SQL script to recreate the Oracle database:
@D:\pm1_db\scripts\PM1BLD
8. After the script completes, type *exit* to close the SQL.*Plus window.
9. Open a DOS window.
10. Type the following to execute the .BAT file to populate the new database:
D:\pm1_db\scripts\PM1Loader.BAT

¹ Note that the exact selection path to SQL*Plus may be different than the path shown here.

11. Select Start->Programs->Oracle for Windows NT->SQL*Plus 8.0 to start *SQL*Plus*
12. Enter *stest* for USER NAME and *etsmps1* for PASSWORD then click on OK. HOST STRING is not required.
13. Type the following to run the SQL script to perform cleanup:
 @D:\pm1_db\scripts\second_pass
14. Type *exit* to close the *SQL*Plus* window.

Attachment C - Release History Summary Matrix

Attached is the release history summary matrix which reflects the MPS/PM1 Release 3.1 delivery. Please note that some of the release numbers have reverted to 1.0 with this delivery. This is because MPS/PM-1 is now making use of Release 1.0 of the generic SIMSS software.

Release History Summary Matrix									
SYSTEM:	MPS/PM1								
RELEASE NUMBER		1.0	1.1	2.0	2.1	2.2	3.0	3.1	
DELIVERY DATE		7/30/99	9/2/99	9/24/99	10/25/99	11/18/99	12/17/99	01/21/00	
CONFIGURATION ITEM	CI NO.								
Core (client)	1.1	1.0	1.0	2.0	2.0	2.0	3.0	1.0	
Core (server)	1.2	1.0	1.0	2.0	2.0	2.2	3.0	1.0	
SC-PM1 (client)	1.3	1.0	1.0	2.0	2.0	2.0	3.0	3.1	
SC-PM1 (server)	1.4	1.0	1.0	2.0	2.1	2.2	3.0	3.1	
GS (client)	1.5	1.0	1.0	2.0	2.0	2.0	3.0	3.1	
GS (server)	1.6	1.0	1.0	2.0	2.0	2.0	3.0	3.1	
IP input (client)	1.7	1.0	1.1	2.0	2.0	2.0	3.0	1.0	
IP input (server)	1.8	1.0	1.1	2.0	2.0	2.0	3.0	1.0	
IP output (client)	1.9	1.0	1.1	2.0	2.0	2.0	3.0	1.0	
IP output (server)	2.0	1.0	1.1	2.0	2.0	2.0	3.0	1.0	

DQM (client)	2.1	*	*	*	*	*	*	*	
DQM (server)	2.2	*	*	*	*	*	*	*	
Logging (client)	2.3	1.0	1.1	2.0	2.0	2.0	3.0	1.0	
Logging (server)	2.4	1.0	1.1	2.0	2.0	2.0	3.0	1.0	

_ * To be delivered in a future release

Attachment D — Mission Systems Configuration Management Form

This attachment contains the completed Mission Systems Configuration Management (MSCM) form for the delivery of MPS/PM1 Release 3.1.

Mission Systems Configuration Management Form

<u>1. ORIGINATOR</u> Estelle Noone	<u>2. ORGANIZATION</u> CSC	<u>3. PHONE</u> 301-805-3653	<u>4. E-MAIL ADDRESS</u> enoone@csc.com
<u>5. ELEMENT</u> ETS (SIMSS/PM1)		<u>6. INSTALLATION PRIORITY</u> Routine	<u>7. TRACKING NUMBER</u> (Assigned by CM Office)
<u>8. SOURCE CHANGE REQUEST(S):</u> ETS delivery of MPS for EOS PM-1 (SIMSS/PM1)		<u>9. APPROVALS</u> Element Manager _____ / / Flight Ops Director _____ / / Operations Manager _____ / /	
<u>10. DELIVERED SYSTEM</u> (Check all that apply)			
	Name	Version	Media Identification
<input type="checkbox"/> Hardware	_____	_____	_____
<input checked="" type="checkbox"/> Software	<u>SIMSS/PM1</u>	<u>R3.1</u>	<u>CD-ROM</u>
<input type="checkbox"/> Database	_____	_____	_____
<input checked="" type="checkbox"/> Documentation:			
	<u>MPS/PM1 delivery package</u>	<u>N/A</u>	<u>via email</u>
	_____	_____	_____
	_____	_____	_____
<input type="checkbox"/> Other	_____	_____	_____
<u>11. CHANGE DESCRIPTION</u> Release 3.1 of MPS/PM-1 (SIMSS/PM-1)			
<u>12. ATTACHMENT(S):</u> Check if YES <input checked="" type="checkbox"/> Description: <u>SIMSS/PM1 Release 3.1 delivery package (cover letter with attachments) dated 01/21/00</u>			
<u>13. CM OFFICE USE</u>			
	Location (Bldg/Room)	Slot location(s)	
Hardware	_____ / _____	_____	
Media	_____ / _____	_____	
Documentation	_____ / _____	_____	
Installation date	_____ / _____ / _____	CM Office Signature _____	

Form MSCM (970327)